

REMARKS

In response to the above Office Action, claim 13 has been amended to more specifically claim the sequence of steps for carrying out the claimed method and to patentably distinguish it from the cited prior art, to avoid the objection to the claim and for clarity. In particular, claim 13, in lines 15-17, now includes the step of "moving the flasks (104, 105) of the flask unit (101) toward each other from the spaced apart position (Fig. 2) to the opposed position (Fig. 3) by sliding said opposed mounting members (flanges 102) of the body of each flask along said connecting rods (106) of the flask unit," the mounting members being attached to each body of each flask so that they "are opposed to each other across the opening of the body for slidably mounting each body on a plurality of connecting rods (106) that integrally connect the body of one flask to the body of the other flask to form said flask unit" See claim 13, lines 7-10. Support for the amendment cannot only be found in former claim 13, but also in the specification from page 5, line 21 to page 6, line 18 and Figs. 1-3.

Conforming amendments have been made to claims 14-18 and 23-26 and they have also been amended to place them in more conventional U.S. format.

Claim 16 has been amended to depend from claim 14 rather than claim 15 to avoid the rejection of the claim under § 112, second paragraph. Note that in claim 15 the molding step is carried out by the pressing members "while" the flask unit is being moved back to said defining step position, whereas in claim 16 the molding step is carried out "before" the flask unit is moved back.

Finally, claims 19-22 and 27-31 have been cancelled.

In the Office Action, the Examiner rejected claims 13, 17, 18, 23 and 25 under 35 U.S.C. § 102(b) for being anticipated by Shioda (US 4,411,303).

As pointed out above, claim 13 now includes the step of moving the flasks of the flask unit toward and away from each other along connecting rods that integrally connect one flask to the other to form a flask unit, the rods being on opposite sides of the openings of the flask because the mounting members of the flasks that slide on these rods are opposed to each other across the opening of the flasks. See Figs. 1 and 2 where the mounting members or flanges 102 of each flask 104, 105 that are slidably mounted to connecting rods 106 are opposed to each other across the opening of the body of each flask.

Although Shioda discloses a flaskless molding machine in which flasks 11, 12 are axially slidable along two guide rods 8 such that they can be opposed to and spaced apart from each other (column 2, lines 40-48), as shown in Figs. 1 and 2 the guide rods 8 are both on the same side of the flasks so the paired flasks are supported for movement in a cantilevered manner. The problem of cantilevered flasks is described in the Background section of the specification. This is avoided in the claimed method where the flasks are supported for sliding movement on opposite sides of the bodies of the flasks.

Thus the claimed method is not anticipated by the disclosure of Shioda nor should it be considered an obvious variation thereof in view of the problems that are avoided by supporting the flasks in the claimed manner. Withdrawal of the rejection of claim 13 and claims 17, 18, 23 and 25 dependent therefrom under § 102(b) is therefore requested.

Claims 13-18, 23 and 25 were also rejected under 35 U.S.C. § 103(a) for being obvious over Knudsen (US 6,499,531) in view of Shioda. However, Knudsen teaches the same method for supporting the flasks for movement as Shioda, namely, flasks that are supported for movement in a cantilevered manner. As shown in Fig. 1 of Knudsen, the flasks 3, 4 are only supported for movement along guide rods 8, 9 and the rods are both on the same side of the flasks. As noted on page 1, lines 11-23 of the specification, this can cause problems in the molding process which are avoided in the claimed method by supporting the flasks for movement from opposed sides of the flasks.

Accordingly, in view of the advantages realized, neither claim 13 nor claims 14-18, 23 and 25 dependent therefrom should be considered to be obvious over Knudsen in view of Shioda. Withdrawal of the combination of references as a ground of rejection of the claims under § 103(a) is therefore requested.

While the Examiner rejected claim 27 under § 103(a) for being obvious over Knudsen in view of Shioda further in view of Kaneto, the claim has been cancelled, so the rejection is now moot.

It is believed claims 13-18, 23 and 25 are now in condition or allowance. If so, then it is requested that withdrawn claims 24 and 26 be reinstated in the case since they depend from claim 13.

In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account 06-0916.

Respectfully submitted,

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